



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/541,530	07/11/2005	Hubert Baumgart	PAT-00344	4046
26922	7590	11/30/2007	EXAMINER	
BASF CORPORATION			MATOCHIK, THOMAS L	
Patent Department				
1609 BIDDLE AVENUE			ART UNIT	
MAIN BUILDING			PAPER NUMBER	
WYANDOTTE, MI 48192			1796	
			NOTIFICATION DATE	DELIVERY MODE
			11/30/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

LORI.HASS@BASF.COM
MARJORIE.ELLIS@BASF.COM
ANNE.SABOURIN@BASF.COM

Office Action Summary	Application No. 10/541,530	Applicant(s) BAUMGART ET AL.	
	Examiner Thomas Matochik	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>7/11/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blum et.al (WO02/02704 using US 6,803,393 as the English translation) and in view of Ohrbom (EP 915113).

Regarding claims 1-5: Blum teaches a curable composition comprising:

(A1) an unsaturated polyester with groups that can be activated with actinic radiation,
(A2) a compound having at least two isocyanate reactive groups (col. 2, lines 29-63),
(A3) a compound having urethane (carbamate), urea and/or allophanate groups (col. 7, lines 9-14), (B1) at least one polyisocyanate (col. 2, lines 64-65) and amino resin crosslinker (col. 10, lines 39-63).

Blum does not teach the ratio of isocyanate groups to isocyanate reactive groups nor the ratio of carbamate groups to the methylol groups in the amino resin. Blum does not teach the alkylated amino resin cross linking agent. However, Ohrbom teaches that the ratio of polyisocyanate crosslinking agent to hydroxyl functionality is preferably about 0.7:1 (¶ 0013, lines 39-45) and the ratio of carbamate groups to the amino resin functionality is preferably about 1:0.6 (¶ 0013, lines 36-38). Blum and Ohrbom are analogous art since they both are from the same field of endeavor, namely

polyisocyanate/polyurethane, crosslink cured compositions. At the time of the invention was made, it would have been obvious to a person of ordinary skill in the art to add the equivalents ratios of Ohrbom to the composition of Blum to quantify the amounts of each reactant to achieve maximum reactivity since the actual equivalents of a reactant may be less than the theoretical amount due to steric effects.

Regarding claims 6 and 7: Blum teaches that the resins (A2) and (A3) are selected from random, Alternating, and/or block, linear, branched and comb addition and condensation copolymers. Further, these copolymers are poly(meth)acrylates, polyurethanes, polyesters and the like (col. 8, lines 39-59).

Regarding claims 8-10: Blum teaches that (A2) and (A3) comprise multiple functionalities (col. 6, lines 59-67). The amount of these functionalities incorporated into the resin can be adjusted by persons having ordinary skill in the art to provide resins with differing amounts of monomers thereby tailoring the desired physical properties of the resins.

Regarding claim 11: Blum teaches the isocyanate-reactive moiety are hydroxyls, thiols and amino groups (col. 6, lines 24-27).

Regarding claim 12: Blum teaches the amino resin crosslinking agent is alkylated with a butyl group (col. 10, lines 48-49).

Regarding claim 13-15: Blum teaches component (A1) contains at least one group having a double bond that can be activated by actinic radiation (col. 2, lines 29-50). The groups containing the double bond are dicyclopentadienyl (col. 4, lines 24-33).

Regarding claim 16: Blum teaches component (A3) containing an acrylate double bond that can be activated by actinic radiation (col. 7, lines 7-8).

Regarding claim 17 and 18: Blum teaches a partially blocked isocyanate (B2) in which (B1) is reacted with an hydroxyalkyl(meth)acrylate, that can be activated by actinic radiation (col. 13, lines 33-55). The isocyanates can be employed in the composition singly or together in a range of between 1 and 50% by weight based on the composition solids (col. 14, lines 12-16).

Regarding claim 19: Blum teaches the composition as follows:

1. (A3) Isocyanate reactive, carbamate containing, polymer /oligomer having actinic groups - 1 to 50% by weight of solids (col. 9, lines 1-7).
2. (A2) Isocyanate reactive polymer/oligomer - 1 to 50% by weight of solids (col. 9, lines 1-7).
3. (A1) Polyester containing actinic groups – 1 to 60% by weight of solids (col. 5, lines 59-64).
4. Amino resin and isocyanate crosslinking agents – 1 to 50% by weight of solids (col. 14, lines 12-17).

Regarding claim 20: Blum teaches the polyisocyanate, Roskydal®2337 (equivalent to: Desmolux™ VP LS 2337, col. 17, lines 65-67), commercially available from Bayer AG having a solids content of 100%.

Regarding claim 21: Blum teaches composition additives (col. 12, lines 4-9).

Regarding claim 22: Blum teaches the composition that can be cured thermally or by actinic radiation (col. 2, lines 25-67).

Regarding claim 23 and 24: Blum teaches the composition is prepared by mixing the crosslinking agent with the reactive polymer resins (A1), (A2) and /or (A3) in a ratio of crosslinking agent between 1 to 50% by weight (col. 14, lines 16-28).

Regarding claim 25 and 26: Blum teaches the composition used as a coating applied to automobiles interior and exterior construction and the like (col. 14, lines 29-39).

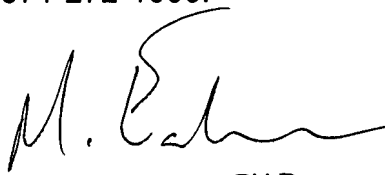
Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas Matochik whose telephone number is 571-270-3291. The examiner can normally be reached on Monday-Friday 7:30 AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on 571-272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TLM
11/14/2007


MARK EASHOO, PH.D.
SUPERVISORY PATENT EXAMINER

11/26/07